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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SEAN BOO SIONG LIM, SHYH CHIJE LEONG, and PHEY HONG SOH

Appeal 2014-009965
Application 12/787,584
Technology Center 2600

Before ROBERT E. NAPPI, DEBRA K. STEPHENS, and JAMES R. HUGHES, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of claims 1, 2, 5, and 7–19, which represent all the pending claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

CLAIMED SUBJECT MATTER

According to Appellants, the claims are directed to a method and an apparatus for multiple sheet media pick detection (Abstract). Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An apparatus, comprising:

an edge detector configured to provide an electronic signal in response to detecting a leading edge of a sheet media;

an optical scanner to provide electronic signals corresponding to image content borne by the sheet media, the edge detector being located before the optical scanner along a sheet media transport direction; and

a controller configured to receive the electronic signals from the edge detector and the optical scanner, the controller further configured to detect a multiple sheet media pick by way of detecting plural trailing edges of at least partially overlapping sheet media using the electronic signals from the optical scanner, the controller further configured to provide a warning signal corresponding to the detection.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Minoru	US 2001/0042956 A1	Nov. 22, 2001
Sano '259	US 2005/0012259 A1	Jan. 20, 2005
Sano	US 2007/0018376 A1	Jan. 25, 2007
Tonami	US 2007/0081212 A1	Apr. 12, 2007

REJECTIONS

Claims 1, 2, 5, 7–14, and 16–19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sano and Tonami (Final Act. 5–15).

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sano, Tonami, and Sano '259 (Final Act. 15–16).

35 U.S.C. § 103(a): Claims 1, 2, 5, 7–14, and 16–19

Appellants contend their invention as recited in claims 1, 2, 5, 7–14, and 16–19, is not obvious over Sano and Tonami (App. Br. 6–21). The issues presented by the arguments are:

Issue 1: Has the Examiner shown the combination of Sano and Tonami teaches or suggests "a controller configured to receive the electronic signals from the edge detector and the optical scanner, the controller further configured to detect a multiple sheet media pick by way of detecting plural trailing edges of at least partially overlapping sheet media using the electronic signals from the optical scanner," where "electronic signals correspond[] to image content borne by the sheet media," as recited in claim 1?

Issue 2: Did the Examiner improperly combine the teachings and suggestions of Sano and Tonami?

ANALYSIS

Appellants argue neither Sano nor Tonami teaches or suggests electronic signals associated with the control circuit correspond to an image borne by the sheet media (App. Br. 10–12). Appellants additionally argue the Examiner has not shown Tonami's scanner optical system is used in determining whether double feed has occurred (*id.*).

In Tonami, the double feed sensor 35 detects double feed of document originals fed from a document tray 33 (Tonami ¶ 43). The double feed

sensor may use ultrasonic waves or light to determine if a double feed has occurred (*id.* ¶¶ 27–28). The double feed sensor may detect leading and trailing edges of each document original (*id.* ¶ 31). The scanner optical system 10 receives the document after the document fed from the document tray, has passed through the double feed sensor (*id.* ¶ 43, Fig. 1). Thus, although Tonami teaches both an edge detector and an optical scanner and further teaches the edge detector is located before the optical scanner, Tonami does not teach any signal from the optical scanner is used by a controller to detect a multiple sheet media pick up.

The Examiner additionally finds Sano teaches sheet edge detection device 7 describes an optical scanner when taking a broad, but reasonable, interpretation, in light of the Specification (Ans. 5–6). Appellants have not persuaded us of error in the Examiner's interpretation of "optical scanner." Nevertheless, Appellants have persuaded us the Examiner has failed to show Sano teaches the recited optical scanner. Specifically, whether the Examiner is relying on the sheet edge detection devices 7 (*id.* at 5; Final Act. 2) or the optical mechanism 114 and photoelectric converting element 113 (Ans. 5–6), the Examiner has not explained how either element provides a signal to a controller to detect a multiple sheet media pick. Nor has the Examiner shown the combination of Tonami's and Sano's disclosures teach the disputed limitation. More specifically, the Examiner has not explained how the combination teaches any electronic signals being provided by the optical scanner to a controller, correspond to image content borne by the sheet media, as recited in independent claims 1 and 10. Thus, we are persuaded by Appellants' arguments that the combination of Sano and Tonami fail to teach or suggest the invention as recited in claims 1 and 10.

With respect to independent claim 16, although we are not persuaded Tonami fails to produce an optical scan when taking a broad, but reasonable, interpretation in light of the Specification (*see* Tonami ¶¶ 28, 43) and Tonami's double feed sensor may detect leading and trailing edges of each document original, the Examiner has not set forth with specificity how the combination of Sano and Tonami teach, or at least suggest, detecting plural trailing edges representing a multiple sheet media pick as recited in claim 16.

Accordingly, Appellants have persuaded us the combination of Sano and Tonami fails to teach or suggest the limitations as recited in independent claims 1, 10, 16, and 19. It follows, the dependent claims fall with their respective independent claims. Therefore, we cannot sustain the rejection of claims 1, 2, 5, 7–14, and 16–19 under 35 U.S.C. § 103(a) for obviousness over Sano and Tonami.

35 U.S.C. § 103(a): Claim 15

For the reasons set forth above, we cannot sustain the rejection of dependent claim 15 under 35 U.S.C. § 103(a) for obviousness over Sano, Tonami, and Sano '259.

DECISION

The Examiner's rejection of claims 1, 2, 5, 7–14, and 16–19 under 35 U.S.C. § 103(a) as being unpatentable over Sano and Tonami is reversed.

The Examiner's rejection of claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Sano, Tonami, and Sano '259 is reversed.

REVERSED